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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,514	10/05/2003	Gin-Der Wu	ALIP0023USA	2513
27765 7590 06/12/2007 NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION P.O. BOX 506 MERRIFIELD, VA 22116			EXAMINER SERROU, ABDELALI	
			ART UNIT 2626	PAPER NUMBER
			NOTIFICATION DATE 06/12/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

winstonhsu.uspto@gmail.com  
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**Office Action Summary**

Application No.

10/605,514

Applicant(s)

WU, GIN-DER

Examiner

Abdelali Serrou

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                 | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Claim Objections*

1. Claims 11, 12, and 14 are objected to because of the following informalities:

Claims 11, 12, and 14 further limit the playing circuit of claim 10, not the method of claim 1. Therefore, claims 11, 12, and 14 should depend on claim 10, instead of claim 1. The examiner has considered the error as a typo.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**Claims 1-15** are rejected under 35 U.S.C. 102(e) as being anticipated by Tackin (U.S 7, 180, 892 filed on Sep. 1, 2000 and issued on Feb. 20, 2007).

**As per claims 1, 8, and 10**, Tackin teaches a plurality of signal data, each datum representing the amplitude of the a voice signal at a different time (Abstract);

setting a standard level and a predetermined period of time (col. 2, lines 3-5);

counting the number of times that the amplitude of a voice signal crosses the standard level in the predetermined period (col. 38, lines 52-53);

outputting a corresponding counting result (inherently disclosed in the process to compare the zero crossing counts to a pre-determined threshold, col. 38, lines 61-62); and

determining whether the voice signal is mixed with the low-frequency voice signal by comparing the counting result with a threshold value (col. 38, lines 61-64).

**As per claims 2, 3, 9, 11, and 12**, Tackin teaches determining whether a voice signal is mixed with the low-frequency voice signal, or not, according to the counting result when the counting result is smaller or larger than the threshold value (col. 38, lines 61-64).

**As per claims 4 and 13**, Tackin teaches wherein the bandwidth of the low-frequency voice signal is equal to the bandwidth of a voice signal (inherently disclosed).

**As per claims 5 and 14**, Tackin teaches wherein the counting step comprises comparing whether one of a current datum and a next datum is larger or smaller than the standard level in the predetermined period, wherein a zero-crossing between the current datum and the next datum in the a voice signal is determined when one of the current datum and the next datum is larger than the standard level and other is smaller than the standard level (inherently disclosed in the case of two consecutive datums separated by a crossing zero point).

**As per claims 6 and 15**, Tackin teaches wherein the standard level is a zero level (col. 38, lines 52-54).

**As per claim 7**, Tackin teaches reducing the amplitude of the low-frequency voice signal in the a voice signal when the a voice signal is determined to be mixed with the low-frequency voice signal (inherent in low-pass filtering, col. 74, line 51-52).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 16-19** are rejected under 35 U.S.C. 103(a) as being unpatentable over Tackin.

**As per claims 16 and 17**, Tackin teaches counting the number of times that the amplitude of a first voice signal crosses the standard level in the predetermined period (col. 38, lines 52-53); outputting a corresponding counting result (inherently disclosed in the process to compare the zero crossing counts to a pre-determined threshold, col. 38, lines 61-62); and determining whether the voice signal is mixed with the low-frequency voice signal by comparing the counting result with a threshold value (col. 38, lines 61-64).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to repeat the same process for a second sound signal, by counting the number of zero-crossings, outputting the result, and determining whether the voice signal is mixed with the low-frequency voice signal by comparing the counting results with a predetermined threshold value or a threshold signal. The advantage is to classify the sound signal.

**As per claims 18 and 19**, Tackin teaches all the limitations of claim 16, upon which claim 18 depends. Tackin does not explicitly teach transforming a voice signal into sound.

However, it is well known in the art to transform a voice signal into sound.

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Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to transform a voice signal into sound, for a better communication.

**Claim 20** is rejected under 35 U.S.C. 103(a) as being unpatentable over Tackin in view of Jiang et al. (hereinafter Jiang) (U.S 6,901,362).

Tackin does not explicitly teach reading a voice signal from a video disc.

Jiang in the same field of endeavor teaches reading a voice signal from a video disc (col. 4, lines 30-31).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to have added the video disc reader of Jiang to the audio signal classifier of Tackin, for registering images data signals.

### ***Conclusion***


4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdelali Serrou whose telephone number is 571-272-7638. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Talivaldis I. Smits can be reached on 571-272-7628. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A. Serrou  
06/04/2007



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